#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Allan J. Wildev, et al.

Application No.: 10/649.289 Filed: August 27, 2003

Title: Steering System for Articulated Vehicles

3661

Group Art Unit: Examiner: Ronnie M. Mancho

Confirmation No.: 5484

900260.90200 Attv. Docket No.:

#### APPEAL BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

Sir

Appellants, having filed a timely Notice of Appeal of a Final Action in the aboveidentified patent application, hereby submit this Appeal Brief in support of patentability.

#### I. REAL PARTY IN INTEREST

The real party in interest is Timberjack, Inc., 925 Devonshire Avenue, Woodstock, Ontario, Canada, the assignee of record, as evidenced by the assignment recorded at Reel/Frame 013620/0509.

## IL. RELATED APPEALS AND INTERFERENCES.

This application was previously appealed and prosecution was reopened in view of the appeal brief filed on October 27, 2006.

There are no other related appeals or interferences.

#### III. STATUS OF CLAIMS

In the present application, claims 1-3, 5-11, 13-14, 16-18, and 21-22 have been canceled. claims 23-24 have been withdrawn, and claims 4, 12, 15, 19, and 20 are pending. Claims 4, 12. 15, 19, and 20 have been finally rejected under 35 U.S.C. § 112, first paragraph. Claims 4, 12, 15, 19, and 20 have also been finally rejected under 35 U.S.C. 103(a). Additionally, the final Office action cites MPEP 2114 but does not specify the rejected claims.

# IV. STATUS OF AMENDMENTS

Following the final Office action, an amendment was filed under 37 C.F.R. § 1.116 on October 29, 2007. In a telephone interview on October 9, 2007, Examiner Mancho indicated that the claim amendments would overcome the § 112 and MPEP 2114 rejections. In an Office communication mailed on December 21, 2007, Examiner Mancho indicated that the claim amendments would not be entered. Accordingly, the listing of claims in Appendix A does not include the claim amendments filed on October 29, 2007.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

The appealed claims include four independent claims: claims 4, 12, 19, and 20, as well as dependent claim 15, which depends from claim 12.

Claim 4 is directed to a steering system for an articulated vehicle, and includes a first frame, such as front frame 10, and a second frame, such as rear frame 20, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18 and illustrated in Fig. 1. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18 and illustrated in Fig. 1. A proportional solenoid actuated hydraulic valve, such as valve 52 having proportional solenoids 50, 55, as shown in Figs. 1 and 2, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder as described in paragraphs 19 and 21. The steering system also includes an operator controlled steering input device, such as steering device 140, as described in paragraph 29 and shown in Fig. 1. The steering system also includes a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering device 140, as shown in Fig. 1 and described in paragraphs 25 and 29. The processor controls the valve 52 in response to inputs from the steering device 140, such as by sending signals to proportional solenoids 50, 55 in response to electrical steering signals received from the steering device 140, as described in paragraph 35. As described in paragraph 26, the system also includes a sensitivity selector, such as steering sensitivity selection switch of operator input device 110 (shown in Fig. 1),

communicatively connected to the processor 60. The sensitivity selector includes a gear selector sensor, such as gear selector sensor 80, for determining a desired steering sensitivity setting. As described in paragraph 34, a desired steering sensitivity setting is a desired steering response to a given operator input, such as more or less steering response in terms of speed and/or magnitude. As described in paragraphs 37 and 40-42, the gear selector sensor provides an input signal to the processor 60 that causes the processor 60 to vary the signal output to the valve 52 in accordance with the input signal from the gear selector sensor. The setting of the sensitivity selector is determined by what gear the vehicle is in, as described in paragraph 37.

Claim 12 defines a steering system for an articulated vehicle, and includes a first frame. such as front frame 10, and a second frame, such as rear frame 20, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18 and illustrated in Fig. 1. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18 and illustrated in Fig. 1. A proportional solenoid actuated hydraulic valve, such as valve 52 having proportional solenoids 50, 55, as shown in Figs. 1 and 2, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder as described in paragraphs 19 and 21. The steering system also includes an operator controlled steering input device, such as steering device 140, as described in paragraph 29 and shown in Fig. 1. The steering system also includes a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering device 140, such as shown in Fig. 1 and described in paragraphs 25 and 29. The processor controls the valve 52 in response to inputs from the steering device 140. such as by sending signals to proportional solenoids 50, 55 in response to electrical steering signals received from the steering device 140, as described in paragraph 35. As described in paragraphs 30 and 31, a sensitivity selector, such as steering sensitivity selection switch of operator input device 110 (shown in Fig. 1), is communicatively connected to the processor. The sensitivity selector determines a desired steering sensitivity setting. As described in paragraph 34, a desired steering sensitivity setting is a desired steering response to a given operator input, such as more or less steering response in terms of speed and/or magnitude. As described in paragraph 31, the sensitivity selector (steering sensitivity selection switch) provides an input signal to the processor, for example to select between a coarse mode, a fine mode, or an

automatic mode. As described in paragraph 35, the input signal from the sensitivity selector causes the processor to vary the signal output to the valve in accordance with the input signal from the sensitivity selector, for example, according to which mode has been selected. The setting of the sensitivity selector is determined directly by an operator, as described in paragraphs 31 and 34, through the use of the steering sensitivity selection switch. The steering system also includes an operator input device, such as a tire size input device of operator input device 110, communicatively connected to the processor. The operator input device allows an operator to input a tire size, such as described in paragraphs 30 and 32. The processor, such as microprocessor 60, determines a maximum articulation angle between the first frame and the second frame based on the tire size input by the operator, as described in paragraph 32.

Claim 15, dependent on claim 12, further defines the steering system as one wherein the processor 60 controls valve 52 to slow down articulation as the maximum allowable articulation angle is approached, as discussed in paragraphs 33 and 43.

Claim 19 defines a steering system for an articulated vehicle which includes a first frame, such as front frame 10, and a second frame, such as rear frame 20, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18 and illustrated in Fig. 1. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18 and illustrated in Fig. 1. A proportional solenoid actuated hydraulic valve, such as valve 52 having proportional solenoids 50, 55, as shown in Figs. 1 and 2, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder as described in paragraphs 19 and 21. The steering system also includes an operator controlled steering input device, such as steering device 140, such as described in paragraph 29 and shown in Fig. 1. As shown in Fig. 1, the steering system also includes an input device such as a tire size input device of operator input device 110 for an operator to input tire size as described in paragraph 32. The steering system includes a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering device 140, such as shown in Fig. 1 and described in paragraphs 25 and 29. The processor controls the valve in response to inputs from the steering device 140, such as by sending signals to proportional solenoids 50, 55 in response to electrical steering signals received from the steering device 140, as described in paragraph 35. Further, the processor

controls the valve 52 so as not to exceed a maximum allowable articulation angle between the first and second frames which the processor sets based on the tire size input by the operator, such as described in paragraph 32.

Claim 20 defines a steering system for an articulated vehicle and includes a first frame, such as front frame 10, and a second frame, such as rear frame 20, pivotally connected to the first frame by a pivot joint 30, as described in paragraph 18 and illustrated in Fig. 1. The steering system includes at least one hydraulic cylinder, such as cylinder 40 or 45, connected between the first frame and the second frame and spanning the pivot joint 30, to articulate the first frame and the second frame relative to one another, as described in paragraph 18 and illustrated in Fig. 1. A proportional solenoid actuated hydraulic valve, such as valve 52 having proportional solenoids 50, 55, as shown in Figs. 1 and 2, is in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder as described in paragraphs 19 and 21. The steering system also includes an operator controlled steering input device, such as steering device 140, as described in paragraph 29 and shown in Fig. 1. The steering system also includes a processor, such as microprocessor 60, communicatively connected to the proportional solenoid valve 52 and to the steering device 140, such as shown in Fig. 1 and described in paragraphs 25 and 29. The processor controls the valve in response to inputs from the steering device 140, such as by sending signals to proportional solenoids 50, 55 in response to electrical steering signals received from the steering device 140, as described in paragraph 35. The steering system also includes an interface, such as the generic interface mentioned in paragraph 45, operatively connecting the steering device 140 to the processor as described in paragraph 38. The processor operates the proportional solenoid valve in response to inputs from the steering device 140, and the interface is the same for different types of steering input devices, such as steering wheel 90 and joystick 100, as described in paragraphs 29 and 45.

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 4, 12, 15, 19, and 20 stand rejected under 35 U.S.C. § 112, first paragraph. Claims 4, 12, 15, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,039,133 to Zulu ("Zulu") in view of U.S. Patent No. 6,863,144 to Brandt et al. ("Brandt"). Claim 12 also stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zulu in view of U.S. Patent No. 4,77,1851 to Nystuen et al ("Nystuen"). Unspecified claims have been rejected based on MPEP 2114.

#### VII. ARGUMENT

# A. Rejection under 35 U.S.C. § 112.

# 1. Rejection of Claim 4 under 35 § 112, first paragraph

The Examiner asserts that the limitation "a sensitivity selector including a gear sensor" is new matter. As discussed in paragraphs 15 and 34, the steering sensitivity can be automatically varied depending on the gear the vehicle is in, as determined by gear selector sensor 80. Accordingly, the specification describes the claimed subject matter in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

# 2. Rejections of Claims 12 and 19 under 35 § 112, first paragraph

The Examiner asserts that the term "maximum allowable articulation angle" is new matter. Paragraph 33 describes the maximum allowable articulation angle as the largest angle between the front frame and the rear frame before the tires contact each other. Accordingly, the specification describes the claimed subject matter in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

# 3. Rejections of Claims 12 and 19 under 35 § 112, second paragraph

The Examiner asserts that's that the term "maximum allowable" is indefinite because it is a relative term. It should be noted that the entire term is "maximum allowable articulation angle." Paragraph 33 defines the term maximum allowable articulation angle as the largest angle between the front frame and the rear frame before the tires contact each other. Hence, the term is definite because one of one of ordinary skill in the art would be reasonably apprised of the scope of the invention.

# 4. Rejection of Claim 20 under 35 § 112, second paragraph

The Examiner asserts that the phrase "is the same for different types of steering" is indefinite. It should be noted that the entire term is "wherein the interface is the same for different types of steering input devices." This means that the interface is the same regardless of what type of steering input device is used, i.e., whether the steering input device is a steering wheel or a joystick or whatever, as described in paragraphs 29 and 45. Accordingly, the term particularly points out and distinctly claims the subject matter.

B. Rejection under 35 U.S.C. § 103(a) over U.S. Patent No. 6,039,133 to Zulu in view of U.S. Patent No. 6.863.144 to Brandt et al.

#### 1. Claim 4

Independent claim 4 defines a steering system for an articulated vehicle with a sensitivity selector including a gear selector sensor. The setting of the sensitivity selector is determined by the gear the vehicle is in.

In the final Office action, the Examiner asserts that Zulu discloses all of the elements of claim 4, with the exception of a sensitivity selector with a setting that is determined by the gear the vehicle is in. Brandt, rather, is cited for disclosing this element. The Examiner, however, has not specified where Brandt teaches this limitation, but rather provides only a conclusory assertion. Appellants fail to find any discussion in Brandt concerning a gear sensor or a sensitivity setting that is determined by a gear, and Appellants' request that the Examiner point out with specificity where this limitation is disclosed has been ignored. As Brandt discloses neither a gear selector sensor nor a steering sensitivity setting that is determined by the gear of the vehicle, claim 4 clearly defines over Brandt and Zulu, either alone or in combination.

Hence, the Examiner has not established a prima facie case of obviousness by showing all of the limitations are taught or fairly suggested in the prior art applied, and claim 4 should be allowed.

# 2. Claim 12

Regarding independent claim 12, both Zulu and Brandt fail to teach that an operator input device may allow an operator to input a tire size, as required by the claim. The Examiner states without specificity that the "prior art takes into consideration or determines the steering mode (including angles) and kind of work the vehicle will perform depending on the tire sizes." Appellants request that the Examiner point out with specificity where this is disclosed in the prior art. Zulu and Brandt may discuss articulation angles, but they simply do not touch upon any input device that allows an operator to input a tire size.

Claim 12 further includes the limitation that the processor determines an articulation angle between the first frame and the second frame based on the tire size input by the operator. Both Zulu and Brandt fail to teach that the processor may determine an articulation angle based on a tire size input. Zulu discloses a threshold angle of articulation and predetermined maximum angle of articulation but does not teach that these angles are determined

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by a processor based on a tire size input. Zulu does not teach how the maximum angle of articulation is determined. Importantly, nothing in the references teaches that a maximum allowable articulation angle would change for a given vehicle. Moreover, the references don't discuss that an articulated vehicle may be used with different tire sizes that impact a maximum allowable articulation angle. Hence, the references fail to teach a processor that determines a maximum allowable articulation angle based on a tire size input.

Hence, the Examiner has not established a prima facie case of obviousness by showing all of the limitations are taught or fairly suggested in the prior art applied.

#### Claim 15

Claim 15 is dependent on claim 12 and further includes the limitation that the processor controls the valve to slow down articulation as the maximum allowable articulation angle is approached. As discussed above, both Zulu and Brandt fail to teach all of the limitations of base claim 12

# Claim 19

As discussed above regarding claim 12, both Zulu and Brandt fail to teach that the operator inputs the tire size and that processor sets the articulation angle based on the tire size input by the operator. Tire size is simply not mentioned in either Zulu or Brandt. Moreover, Both Zulu and Brandt fail to teach that the processor may determine a maximum articulation angle based on a tire size input.

#### 5. Claim 20

Regarding independent claim 20, both Zulu and Brandt fail to teach that an interface that is the same for different types of steering input devices. Zulu discloses that the "manual steering actuator 53 includes a position sensor 55 operatively coupled to a control handle 56" (col. 5, lines 17-18). The position sensor 55 is electrically coupled to the processor 48 through an electrical signal line 57 (col. 5, lines 18-19). The Examiner asserts that electrical signal line 57 teaches an interface that is the same for different types of steering input devices. However, Zulu does not disclose that any other type of steering input device would be connected to the electrical signal line 57. Furthermore, Zulu does not teach any other type of steering input device other than a control handle and does not teach that any other type of steering input device would operate with the manual steering actuator 53 and position sensor 55. Similarly, Brandt

merely discloses a single type of steering input device, namely, a joystick having a variety of features.

# C. Rejection under 35 U.S.C. § 103(a) over U.S. Patent No. 6,039,133 to Zulu in view of U.S. Patent No. 4.771.851 to Nystuen et al.

Claim 12 recites an operator input device communicatively connected to a processor and configured to allow an operator an input a tire size. The processor determines a maximum allowable articulation angle based on the tire size input. In the office action, the Examiner failed to address this limitation in any way. Neither Zulu nor Nystuen discloses an operator input device for receiving a tire size. Therefore, the cited prior art references fail to teach all of the limitations of the claim.

Additionally, neither Zulu nor Nystuen discloses a sensitivity selector having a setting that is determined directly by an operator, as required by claim 12. In the final Office action, the Examiner admits that Zulu does not teach such a sensitivity selector. Nyusten is cited for teaching the limitation.

Nystuen discloses a steering system for an articulated vehicle including a controller that allows a user to select between an articulated steering mode (col. 3, line 58 - col. 4, line 2) and an axle steering mode (col. 4, lines 3-17). In either mode, a steering wheel 64 is used to select both a desired steering direction and rate of change. There is no difference in steering response between the axle steering and articulated modes. The operator, therefore, cannot choose a sensitivity setting. The combination of Zulu and Nystuen, therefore, fails to teach all of the limitations of claim 12 for this reason as well.

Hence, the Examiner has not established a prima facie case of obviousness by showing all of the limitations are taught or fairly suggested in the prior art applied.

# D. Rejection under MPEP 2114.

As discussed above, the claims are distinguished from the prior art in terms of structure. Therefore, the rejection under MPEP 2114 is inappropriate.

# VIII. CONCLUSION

In view of the above, Appellants request reversals of the final rejection under 35 U.S.C. § 1112 regarding claims 4, 12, 15, 19 and 20, the final rejection under 35 U.S.C. § 103(a) regarding claims 4, 12, 15, 19, and 20, and the final rejection under MPEP 2114 regarding claims 4, 12, and 19.

Respectfully submitted,

Dated: December 31, 2007

By: /Jeremy J. Westlake/ Jeremy J. Westlake Reg. No. 57,470

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# APPENDIX A

- 1-3. (Canceled)
- 4. (Previously Presented) A steering system for an articulated vehicle, comprising:
- a) a first frame:
- b) a second frame pivotally connected to the first frame by a pivot joint;
- c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another:
- d) a proportional solenoid actuated hydraulic valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder.
  - e) an operator controlled steering input device;
- f) a processor communicatively connected to the proportional solenoid valve and to the steering input device to control the valve in response to inputs from the steering input device;
  and
- g) a sensitivity selector including a gear selector sensor for determining a desired steering sensitivity setting, which is a desired steering response to a given operator input to the steering input device, the sensitivity selector being communicatively connected to the processor to provide an input signal to the processor that causes the processor to vary the signal output to the valve in accordance with the input signal from the sensitivity selector, wherein the setting of the sensitivity selector is determined by what gear the vehicle is in.

# 5-11. (Cancelled)

- 12. (Previously Presented) A steering system for an articulated vehicle, comprising:
- a) a first frame;
- b) a second frame pivotally connected to the first frame by a pivot joint;
- c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another:
- a proportional solenoid actuated hydraulic valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;

- an operator controlled steering input device;
- a processor communicatively connected to the proportional solenoid valve and to the steering input device to control the valve in response to inputs from the steering input device;
  and
- g) a sensitivity selector for determining a desired steering sensitivity setting, which is a desired steering response to a given operator input to the steering input device, the sensitivity selector being communicatively connected to the processor to provide an input signal to the processor that causes the processor to vary the signal output to the valve in accordance therewith, wherein the setting of the sensitivity selector is determined directly by an operator, further comprising an operator input device communicatively connected to the processor for allowing an operator to input a tire size, wherein the processor determines a maximum allowable articulation angle between the first frame and the second frame based on the tire size input by the operator, and wherein the processor controls the valve to prevent articulation of the first frame and the second frame past the maximum allowable articulation angle.

# 13-14. (Cancelled)

15. (Previously Presented) A steering system for an articulated vehicle as recited in claim 12, wherein the processor controls the valve to slow down articulation as the maximum allowable articulation angle is approached.

#### 16-18. (Cancelled)

- 19. (Previously Presented) A steering system for an articulated vehicle, comprising:
- a) a first frame;
- b) a second frame pivotally connected to the first frame by a pivot joint;
- c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another.
- a proportional solenoid valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;
  - e) an operator controlled steering input device;

- f) an input device for an operator to input tire size;
- g) a processor communicatively connected to the proportional solenoid valve and to the steering input device to control the valve in response to inputs from the steering input device;
- h) wherein the processor controls the valve so as not to exceed a maximum allowable articulation angle between the first and second frames which the processor sets based on the tire size input by the operator.

- 20. (Original) A steering system for an articulated vehicle, comprising:
- a) a first frame:
- b) a second frame pivotally connected to the first frame by a pivot joint;
- c) at least one hydraulic cylinder, connected between the first frame and the second frame and spanning the pivot joint, to articulate the first frame and the second frame relative to one another:
- a proportional solenoid valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder;
  - e) an operator controlled steering input device;
  - f) a processor;
  - g) an interface operatively connecting the steering input device to the processor;
- h) wherein the processor operates the proportional solenoid valve in response to inputs from the steering input device;
  - i) wherein the interface is the same for different types of steering input devices.
  - 21-22. (Cancelled)

23. (Withdrawn) A method for steering an articulated vehicle having a first frame, a second frame pivotally connected to the first frame by a pivot joint, at least one hydraulic cylinder connected between the first frame and the second frame and spanning the pivot joint to articulate the first frame and the second frame relative to one another, a proportional solenoid valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder, an operator controlled steering device operable to produce steering signals, and a processor communicatively connected to the proportional solenoid valve and to the steering input device, the method comprising:

producing steering signals in response to mechanical steering inputs from an operator, communicating the steering signals to the processor, and

controlling the valve in response to the steering signals to align axes of the first frame and the second frame to be generally parallel from a generally non-parallel position when the steering input device is returned to a center position. 24. (Withdrawn) A method for steering an articulated vehicle having a first frame, a second frame pivotally connected to the first frame by a pivot joint, at least one hydraulic cylinder connected between the first frame and the second frame and spanning the pivot joint to articulate the first frame and the second frame relative to one another, a proportional solenoid steering valve in communication with the hydraulic cylinders to control the flow of hydraulic fluid to the hydraulic cylinder, at least one other solenoid valve to control at least one other function, a source of pressurized hydraulic fluid which supplies hydraulic fluid under pressure to both of the valves, an operator controlled steering device operable to produce steering signals, and a processor communicatively connected to the proportional solenoid steering valve, the at least one other solenoid valve, and to the steering input device, the method comprising,

producing steering signals in response to mechanical steering inputs from an operator, communicating the steering signals to the processor, and

controlling the steering valve in response to inputs from the steering input device, and giving priority to flow from the source of hydraulic fluid to the steering valve over flow from the source of hydraulic fluid to the at least one other solenoid valve.

# APPENDIX B EVIDENCE

There is no evidence, other than the documents cited in the final Office action.

# APPENDIX C RELATED PROCEEDINGS

There are no decisions in related proceedings.

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Allan J. Wildey, et al.

Application No.: 10/649,289 Filed: August 27, 2003

Title: STEERING SYSTEM FOR ARTICULATED VEHICLES

Group Art Unit: 3661

Examiner: Sool Ronnie M. Manch

Confirmation No :

Ronnie M. Mancho 5484

Atty. Docket No.: 900260.90200

#### SUBMISSION OF APPEAL BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Appellants hereby submit an Appeal Brief in support of the Notice of Appeal filed October 29, 2007, following a final rejection in the above-listed patent application.

The previously paid fee for filing an Appeal Brief should be applied to the filing of this Appeal Brief; however, the fee has increased by \$10.00 since its was previously paid. The \$10.00 fee increase for filing an Appeal Brief and any other fees arising as a result of this or any other communication should be charged to Deposit Account No. 17-0055. No additional fee is believed to be due. In the event that a fee has been overlooked, please charge same to Deposit Account No. 17-0055.

Respectfully submitted.

Dated: December 31, 2007- By: /Jeremy J. Westlake/

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